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L2: Entry 1 of 14

File: USPT

Mar 27, 2001

US-PAT-NO: 6207713

DOCUMENT-IDENTIFIER: US 6207713 B1

TITLE: Topical and oral delivery of arginine to cause beneficial effects

DATE-ISSUED: March 27, 2001

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Fossel, Eric T.	S. Hero	VT	05486	

US-CL-CURRENT: 514/565; 424/401, 424/439, 424/450

## CLAIMS:

What is claimed is:

1. A method of increasing local blood flow by delivering a nitric oxide releasing substance selected from a member of the group consisting of L-arginine, L-arginine salts and L-arginine derivatives comprising the step of orally administering to the body a delivery vehicle for the substance, said delivery vehicle containing an effective amount of the substance and a concentration of ionic salt, sufficient to create a hostile biophysical environment which causes the substance to migrate from the delivery vehicle to the skin where the substance is absorbed by the surrounding tissue.
2. The method of claim 1 wherein the delivery vehicle selected from the group consisting of capsules, tablets, and liquids containing the substance is orally administered to the body.
3. The method of claim 1 wherein the delivery vehicle comprising L-arginine in the range of 0.5-30 g/day is administered.
4. A method of increasing local blood flow by delivering a nitric oxide releasing substance selected from a member of the group consisting of L-arginine, L-arginine salts and L-arginine derivatives comprising the step of orally administering to the body a delivery vehicle for the substance, said delivery vehicle containing an effective amount of the substance and a concentration of ionic salt sufficient to create a hostile biophysical environment which causes the substance to migrate from said delivery vehicle to the surrounding tissue where it is absorbed in conjunction with the step of topically applying a topical delivery vehicle containing an effective amount of the substance and a concentration of ionic salt sufficient to create a hostile biophysical environment which causes the substance to migrate from the vehicle to the selected area of skin where the substance is absorbed by tissue.
5. The method of claim 4 wherein the topical delivery vehicle is selected from a member of the group consisting of topical creams, topical liquids, topical lotions and topical ointments.
6. The method of claim 4 wherein the topical delivery vehicle that is applied to the skin is hydrophobic.

*Blood flow only**dp on blood flow**20! and 7**[Signature]*

7. The method of claim 4 wherein a transdermal patch containing the topical delivery vehicle is applied to the skin.
8. The method of claim 4 wherein a delivery vehicle that is orally administered comprises L-arginine (0.5-30 g/day), and the topical delivery vehicle that is applied to the skin comprises water (20-80% ), mineral oil (3-18%), glyceryl stearate (0.5-12%), squalene (0.2-12%), cetyl alcohol (0.1-11%), propylene glycol stearate (0.1-11%), wheat germ oil (0.1-6%), glyceryl stearate (0.1-6%), isopropyl myristate (0.1-6%), stearyl stearate (0-6%), polysorbate 60 (0.1-50%), propylene glycol (0.05-5%), tocopherol acetate (0.05-5%), collagen (0.05-5%), sorbitan stearate (0.5-5%), vitamin A&D (0.02-4%), triethanolamine (0.01-4%), methylparaben (0.01-4%), aloe vera extract (0.01-4%), imidazolidinyl urea (0.01-4%), propylparaben (0.01-4%), bha (0.01-4%), L-arginine hydrochloride (0.25% to 25%), sodium chloride (0.25% to 25%), and magnesium chloride (0.25% to 25%).
9. The method of claim 8 wherein the topical delivery vehicle further comprises choline chloride (0.25-25%).
10. The method of claim 8 wherein the topical delivery vehicle further comprises L-arginine glutamate (0.25-25%).
11. A method of increasing local blood flow by delivering a nitric oxide releasing substance selected from a member of the group consisting of L-arginine, L-arginine salts and L-arginine derivatives comprising the step of orally administering to the body a delivery vehicle for the substance, said delivery vehicle containing an effective amount of the substance and a concentration of ionic salt sufficient to create a hostile biophysical environment which causes the substance to migrate from said delivery vehicle to the surrounding tissue where it is absorbed, in conjunction with the step of topically applying a topical delivery vehicle containing an effective amount of the substance within a liposome, so that the liposome containing the substance migrates from the delivery vehicle into the skin where the substance is absorbed by tissue.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMC
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☐ 2. Document ID: US 5922332 A

L2: Entry 2 of 14

File: USPT

Jul 13, 1999

US-PAT-NO: 5922332

DOCUMENT-IDENTIFIER: US 5922332 A

TITLE: Topical delivery of arginine to overcome pain

DATE-ISSUED: July 13, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Fossel, Eric T.	S. Hero	VT	05486	

US-CL-CURRENT: 424/401; 424/450

CLAIMS:

What is claimed is:

1. A method of overcoming pain comprising delivering a kyotorphin releasing substance selected from a member of the group consisting of L-arginine, L-arginine salts and L-arginine derivatives, to skin comprising the step of topically applying to the skin a vehicle containing an effective amount of the substance, and a concentration of ionic salt sufficient to create an ionic environment which causes the substance to migrate

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L1: Entry 1 of 15

File: PGPB

May 31, 2001

PGPUB-DOCUMENT-NUMBER: 20010002405  
PGPUB-FILING-TYPE: new-utility  
DOCUMENT-IDENTIFIER: US 20010002405 A1

TITLE: Topical and oral delivery of arginine to cause beneficial effects

PUBLICATION-DATE: May 31, 2001

## INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Fossel, Eric T.	South Hero	VT	US	

US-CL-CURRENT: 514/565

## CLAIMS:

What is claimed is:



1. A method for delivering a nitric oxide precursor to an area of the body for the purpose of increasing local blood flow.
2. The method of claim 1 where the delivery vehicle is orally administered forms of L-arginine such as capsules, tablets, liquid or other oral form in dosage sufficient to produce the desired effect.
3. The method of claim 1 where the delivery vehicles are orally administered L-arginine used in conjunction with a penetrating cream, a liquid, a lotion, an ointment or other topical preparation containing L-arginine, salt or salts of L-arginine, a complex of L-arginine or a derivative of L-arginine in an effective dose.
4. The method of claim 1 where the delivery vehicle are orally administered L-arginine used in conjunction with a penetrating cream, a liquid, a lotion, an ointment or other topical preparation containing L-arginine, salt or salts of L-arginine, a complex of L-arginine or a derivative of L-arginine in an effective dose in addition to other ionic salts such as to create an ionic strength environment high enough to provide an extra force to cause tissue absorption of the L-arginine species.
5. The method of claim 1 where the delivery vehicle is orally administered L-arginine used in conjunction with a penetrating cream of hydrophobic nature containing little or no water, but oils, waxes and other hydrophobic substances, containing L-arginine, salt or salts of L-arginine, a complex of L-arginine or a derivative of L-arginine in an effective dose.
6. The method of claim 1 where the delivery vehicle is orally administered L-arginine used in conjunction with a penetrating cream, a liquid, a lotion, an ointment or other topical preparation containing liposomes or liposome like structures which contain within them L-arginine, salt or salts of L-arginine, a complex of L-arginine or a derivative of L-arginine in an effective dose.
7. The method of claim 1 where the delivery vehicle is orally administered L-arginine used in conjunction with a penetrating cream, a liquid, a lotion, an ointment or other topical preparation containing liposomes in which are encapsulated L-arginine, salt or salts of L-arginine in an effective dose in addition to other ionic salts such as to create an ionic strength environment high enough to provide extra force to cause absorption of the L-arginine species.

8. The method of claim 1 where the delivery vehicle is orally administered L-arginine used in conjunction with a trans-dermal patch or its equivalent where the patch contains L-arginine, a salt or salts of L-arginine, a complex of L-arginine or a derivative of L-arginine in an effective dose.
9. The method of claim 1 where the delivery vehicle is orally administered L-arginine used in conjunction with a trans-dermal patch or its equivalent where the patch contains L-arginine, a salt or salts of L-arginine, a complex of L-arginine or a derivative of L-arginine in an effective dose in addition to other ionic salts such as to create an ionic strength environment high enough to provide extra force to cause tissue absorption of the L-arginine species.
10. The method of claim 1 where the delivery vehicle is orally administered L-arginine (0.5-30 g/day) used in conjunction with a cream containing water, aloe vera, mineral oil, glycerol stearate, squalene, wheat germ oil, cetyl alcohol, propylene glycol stearate, polysorbate 60, propylene glycol, vitamin E, hyaluronic acid/collagen, vitamin A, vitamin D, sorbitan stearate, triethanolamine, imidazolidinyl urea, methylparaben, propylparaben, bha, L-arginine hydrochloride (0.25% to 25%) and sodium chloride (0.25% to 25%).
11. The method of claim 1 where the delivery vehicle is orally administered L-arginine (0.5-30 g/day) used in conjunction with a cream containing water, aloe vera, mineral oil, glycerol stearate, squalene, wheat germ oil, cetyl alcohol, propylene glycol stearate, polysorbate 60, propylene glycol, vitamin E, hyaluronic acid/collagen, vitamin A, vitamin D, sorbitan stearate, triethanolamine, imidazolidinyl urea, methylparaben, propylparaben, bha, L-arginine glutamate (0.25% to 25%) and sodium chloride (0.25%-25%).
12. The method of claim 1 where the delivery vehicle is orally administered L-arginine (0.5-30 g/day) in conjunction with a cream containing water, aloe vera, mineral oil, glycerol stearate, squalene, wheat germ oil, cetyl alcohol, propylene glycol stearate, polysorbate 60, propylene glycol, vitamin E, hyaluronic acid/collagen, vitamin A, vitamin D, sorbitan stearate, triethanolamine, imidazolidinyl urea, methylparaben, propylparaben, bha, L-arginine (0.25% to 25%) and choline chloride (0.25% to 25%).
13. A method for warming cool or cold tissue by providing, through means of a delivery vehicle, to the cold or cool tissue an effective dose of a precursor to the endothelial relaxing factor, nitric oxide.
14. The method of claim 13 where the delivery vehicle is orally administered L-arginine contained in capsules, tablets, liquid or other oral form in dosage sufficient to cause the desired effect.
15. The method of claim 13 where the delivery vehicle is orally administered L-arginine used in conjunction with a penetrating cream, a liquid, a lotion, and ointment or other topical preparation containing L-arginine, salt or salts of L-arginine, a complex of L-arginine or a derivative of L-arginine in an effective dose.
16. The method of claim 13 where the delivery vehicle is orally administered L-arginine used in conjunction with a penetrating cream, a liquid, a lotion, an ointment or other topical preparation containing L-arginine, salt or salts of L-arginine, a complex of L-arginine or a derivative of L-arginine in an effective dose in addition to other ionic salts such as to create an ionic strength environment high enough to provide an extra force to cause tissue absorption of the L-arginine species.
17. The method of claim 13 where the delivery vehicle is orally administered L-arginine used in conjunction with a penetrating cream of hydrophobic nature containing oils, waxes and other hydrophobic materials and little water sufficient to aid in the absorption of the nitric oxide precursor L-arginine, salt or salts of L-arginine, a complex of L-arginine or a derivative of L-arginine in an effective dose.
18. The method of claim 13 where the delivery vehicle is orally administered L-arginine used in conjunction with a penetrating cream, a liquid, a lotion, an ointment or other topical preparation containing liposomes in which are encapsulated L-arginine, salt or salts of L-arginine, a complex of L-arginine or a derivative of L-arginine in an effective dose.
19. The method of claim 13 where the delivery vehicle is orally administered L-arginine in conjunction with a penetrating cream, a liquid, a lotion, an ointment or other

topical preparation containing liposomes in which are encapsulated L-arginine, salt or salts of L-arginine, a complex of L-arginine or a derivative of L-arginine in an effective dose in addition to other ionic salts such as to create an ionic strength environment high enough to provide extra force to cause absorption of the L-arginine species.

20. The method of claim 13 where the delivery vehicle is orally administered L-arginine administered in conjunction with a trans-dermal patch or its equivalent where the patch contains L-arginine, a salt or salts of L-arginine, a complex of L-arginine or a derivative of L-arginine in an effective dose.

21. The method of claim 13 where the delivery vehicle is orally administered L-arginine administered in conjunction with a trans-dermal patch or its equivalent where the patch contains L-arginine, a salt or salts of L-arginine, a complex of L-arginine or a derivative of L-arginine in an effective dose in addition to other ionic salts such as to create an ionic strength environment high enough to provide an extra force to cause tissue absorption of the L-arginine species.

22. The method of claim 13 where the delivery vehicle is orally administered L-arginine (0.5-30 g/day) administered in conjunction with a cream containing water, aloe vera, mineral oil, glycerol stearate, squalene, wheat germ oil, cetyl alcohol, propylene glycol stearate, polysorbate 60, propylene glycol, vitamin E, hyaluronic acid/collagen, vitamin A, vitamin D, sorbitan stearate, triethanolamine, imidazolidinyl urea, methylparaben, propylparaben, bha, L-arginine hydrochloride (0.25% to 25%) and sodium chloride (0.25% to 25%).

23. The method of claim 13 where the delivery vehicle is orally administered L-arginine (0.5-30 g/day) administered in conjunction with a cream containing water, aloe vera, mineral oil, glycerol stearate, squalene, wheat germ oil, cetyl alcohol, propylene glycol stearate, polysorbate 60, propylene glycol, vitamin E, hyaluronic acid/collagen, vitamin A, vitamin D, sorbitan stearate, triethanolamine, imidazolidinyl urea, methylparaben, propylparaben, bha, L-arginine glutamate (0.25% to 25%) and sodium chloride (0.25%-25%).

24. The method of claim 13 where the delivery vehicle is orally administered L-arginine (0.5-30 g/day) administered in conjunction with a cream containing water, aloe vera, mineral oil, glycerol stearate, squalene, wheat germ oil, cetyl alcohol, propylene glycol stearate, polysorbate 60, propylene glycol, vitamin E, hyaluronic acid/collagen, vitamin A, vitamin D, sorbitan stearate, triethanolamine, imidazolidinyl urea, methylparaben, propylparaben, bha, L-arginine (0.25% to 25%) and choline chloride (0.25% to 25%).

25. A method for promoting hair growth on bald scalp, through means of a delivery vehicle, to the bald scalp an effective dose of a precursor to the endothelial relaxing factor, nitric oxide.

26. The method of claim 25 where the delivery vehicle is orally administered L-arginine contained in capsules, tablets, liquid or other oral form at a dosage sufficient to obtain the desired effect.

27. The method of claim 25 where the delivery vehicle is orally administered L-arginine administered in conjunction with a penetrating cream, a liquid, a lotion, and ointment or other topical preparation containing L-arginine, salt or salts of L-arginine, a complex of L-arginine or a derivative of L-arginine in an effective dose.

28. The method of claim 25 where the delivery vehicle is orally administered L-arginine use in conjunction with a penetrating cream, a liquid, a lotion, an ointment or other topical preparation containing L-arginine, salt or salts of L-arginine, a complex of L-arginine or a derivative of L-arginine in an effective dose in addition to other ionic salts such as to create an ionic strength environment high enough to provide an extra force to cause tissue absorption of the L-arginine species.

29. The method of claim 25 where the delivery vehicle is orally administered L-arginine used in conjunction with a penetrating cream of hydrophobic nature containing oils, waxes and other hydrophobic materials and little water sufficient to aid in the absorption of the nitric oxide precursor L-arginine, salt or salts of L-arginine, a complex of L-arginine or a derivative of L-arginine in an effective dose.

30. The method of claim 25 where the delivery vehicle is orally administered L-arginine

- used in conjunction with a penetrating cream, a liquid, a lotion, an ointment or other topical preparation containing liposomes in which are encapsulated L-arginine, salt or salts of L-arginine, a complex of L-arginine or a derivative of L-arginine in an effective dose.
31. The method of claim 25 where the delivery vehicle is orally administered L-arginine used in conjunction with a penetrating cream, a liquid, a lotion, an ointment or other topical preparation containing liposomes in which are encapsulated L-arginine, salt or salts of L-arginine, a complex of L-arginine or a derivative of L-arginine in an effective dose in addition to other ionic salts such as to create an ionic strength environment high enough to provide extra force to cause absorption of the L-arginine species.
32. The method of claim 25 where the delivery vehicle is orally administered L-arginine used in conjunction with a trans-dermal patch or its equivalent where the patch contains L-arginine, a salt or salts of L-arginine, a complex of L-arginine or a derivative of L-arginine in an effective dose.
33. The method of claim 25 where the delivery vehicle is orally administered L-arginine used in conjunction with a trans-dermal patch or its equivalent where the patch contains L-arginine, a salt or salts of L-arginine, a complex of L-arginine or a derivative of L-arginine in an effective dose in addition to other ionic salts such as to create an ionic strength environment high enough to provide an extra force to cause tissue absorption of the L-arginine species.
34. The method of claim 25 where the delivery vehicle is orally administered L-arginine (0.5-30 g/day) used in conjunction with a cream containing water, aloe vera, mineral oil, glycerol stearate, squalene, wheat germ oil, cetyl alcohol, propylene glycol stearate, polysorbate 60, propylene glycol, vitamin E, hyaluronic acid/collagen, vitamin A, vitamin D, sorbitan stearate, triethanolamine, imidazolidinyl urea, methylparaben, propylparaben, bha, L-arginine hydrochloride (0.25% to 25%) and sodium chloride (0.25% to 25%).
35. The method of claim 25 where the delivery vehicle is orally administered L-arginine (0.5-30 g/day) used in conjunction with a cream containing water, aloe vera, mineral oil, glycerol stearate, squalene, wheat germ oil, cetyl alcohol, propylene glycol stearate, polysorbate 60, propylene glycol, vitamin E, hyaluronic acid/collagen, vitamin A, vitamin D, sorbitan stearate, triethanolamine, imidazolidinyl urea, methylparaben, propylparaben, bha, L-arginine glutamate (0.25% to 25%) and sodium chloride (0.25%-25%).
36. The method of claim 25 where the delivery vehicle is orally administered L-arginine (0.5-30 g/day) used in conjunction with a cream containing water, aloe vera, mineral oil, glycerol stearate, squalene, wheat germ oil, cetyl alcohol, propylene glycol stearate, polysorbate 60, propylene glycol, vitamin E, hyaluronic acid/collagen, vitamin A, vitamin D, sorbitan stearate, triethanolamine, imidazolidinyl urea, methylparaben, propylparaben, bha, L-arginine (0.25% to 25%) and choline chloride (0.25% to 25%).
37. A method for promoting healing of superficial ulcers such as leg ulcers secondary to diabetes or other causes, through means of a delivery vehicle, to the ulcer and the area surrounding it an effective dose of a precursor to the endothelial relaxing factor, nitric oxide.
38. The method of claim 37 where the delivery vehicle is orally administered L-arginine in capsules, tablets, liquid or other oral forms in a dosage sufficient to produce the desired effect.
39. The method of claim 37 where the delivery vehicle is orally administered L-arginine used in conjunction with a penetrating cream, a liquid, a lotion, and ointment or other topical preparation containing L-arginine, salt or salts of L-arginine, a complex of L-arginine or a derivative of L-arginine in an effective dose.
40. The method of claim 37 where the delivery vehicle is orally administered L-arginine used in conjunction with a penetrating cream, a liquid, a lotion, an ointment or other topical preparation containing L-arginine, salt or salts of L-arginine, a complex of L-arginine or a derivative of L-arginine in an effective dose in addition to other ionic salts such as to create an ionic strength environment high enough to provide an extra force to cause tissue absorption of the L-arginine species.

41. The method of claim 37 where the delivery vehicle is orally administered L-arginine administered in conjunction with a penetrating cream of hydrophobic nature containing oils, waxes and other hydrophobic materials and little water sufficient to aid in the absorption of the nitric oxide precursor L-arginine, salt or salts of L-arginine, a complex of L-arginine or a derivative of L-arginine in an effective dose.
42. The method of claim 37 where the delivery vehicle is orally administered L-arginine used in conjunction with a penetrating cream, a liquid, a lotion, an ointment or other topical preparation containing liposomes in which are encapsulated L-arginine, salt or salts of L-arginine, a complex of L-arginine or a derivative of L-arginine in an effective dose.
43. The method of claim 37 where the delivery vehicle is orally administered L-arginine used in conjunction with a penetrating cream, a liquid, a lotion, an ointment or other topical preparation containing liposomes in which are encapsulated L-arginine, salt or salts of L-arginine, a complex of L-arginine or a derivative of L-arginine in an effective dose in addition to other ionic salts such as to create an ionic strength environment high enough to provide extra force to cause absorption of the L-arginine species.
44. The method of claim 37 where the delivery vehicle is orally administered L-arginine used in conjunction with a trans-dermal patch or its equivalent where the patch contains L-arginine, a salt or salts of L-arginine, a complex of L-arginine or a derivative of L-arginine in an effective dose.
45. The method of claim 37 where the delivery vehicle is orally administered L-arginine used in conjunction with a trans-dermal patch or its equivalent where the patch contains L-arginine, a salt or salts of L-arginine, a complex of L-arginine or a derivative of L-arginine in an effective dose in addition to other ionic salts such as to create an ionic strength environment high enough to provide an extra force to cause tissue absorption of the L-arginine species.
46. The method of claim 37 where the delivery vehicle is orally administered L-arginine (0.5-30 g/day) used in conjunction with a cream containing water, aloe vera, mineral oil, glycerol stearate, squalene, wheat germ oil, cetyl alcohol, propylene glycol stearate, polysorbate 60, propylene glycol, vitamin E, hyaluronic acid/collagen, vitamin A, vitamin D, sorbitan stearate, triethanolamine, imidazolidinyl urea, methylparaben, propylparaben, bha, L-arginine hydrochloride (0.25% to 25%) and sodium chloride (0.25% to 25%).
47. The method of claim 37 where the delivery vehicle is orally administered L-arginine (0.5-30 g/day) used in conjunction with a cream containing water, aloe vera, mineral oil, glycerol stearate, squalene, wheat germ oil, cetyl alcohol, propylene glycol stearate, polysorbate 60, propylene glycol, vitamin E, hyaluronic acid/collagen, vitamin A, vitamin D, sorbitan stearate, triethanolamine, imidazolidinyl urea, methylparaben, propylparaben, bha, L-arginine glutamate (0.25% to 25%) and sodium chloride (0.25%-25%).
48. The method of claim 37 where the delivery vehicle is orally administered L-arginine (0.5-30 g/day) used in conjunction with a cream containing water, aloe vera, mineral oil, glycerol stearate, squalene, wheat germ oil, cetyl alcohol, propylene glycol stearate, polysorbate 60, propylene glycol, vitamin E, hyaluronic acid/collagen, vitamin A, vitamin D, sorbitan stearate, triethanolamine, imidazolidinyl urea, methylparaben, propylparaben, bha, L-arginine (0.25% to 25%) and choline chloride (0.25% to 25%).
49. A method for overcoming impotence by delivering to the penis an effective dose of a precursor to the endothelial relaxing factor, nitric oxide.
50. The method of claim 49 where the delivery vehicle is orally administered L-arginine in capsules, tablets, liquid or other oral forms in a dosage sufficient to produce the desired effect.
51. The method of claim 49 where the delivery vehicle is orally administered L-arginine used in conjunction with a penetrating cream, a liquid, a lotion, and ointment or other topical preparation containing L-arginine, salt or salts of L-arginine, a complex of L-arginine or a derivative of L-arginine in an effective dose.

52. The method of claim 49 where the delivery vehicle is orally administered L-arginine used in conjunction with a penetrating cream, a liquid, a lotion, an ointment or other topical preparation containing L-arginine, salt or salts of L-arginine, a complex of L-arginine or a derivative of L-arginine in an effective dose in addition to other ionic salts such as to create an ionic strength environment high enough to provide an extra force to cause tissue absorption of the L-arginine species.
53. The method of claim 49 where the delivery vehicle is orally administered L-arginine administered in conjunction with a penetrating cream of hydrophobic nature containing oils, waxes and other hydrophobic materials and little water sufficient to aid in the absorption of the nitric oxide precursor L-arginine, salt or salts of L-arginine, a complex of L-arginine or a derivative of L-arginine in an effective dose.
54. The method of claim 49 where the delivery vehicle is orally administered L-arginine used in conjunction with a penetrating cream, a liquid, a lotion, an ointment or other topical preparation containing liposomes in which are encapsulated L-arginine, salt or salts of L-arginine, a complex of L-arginine or a derivative of L-arginine in an effective dose.
55. The method of claim 49 where the delivery vehicle is orally administered L-arginine used in conjunction with a penetrating cream, a liquid, a lotion, an ointment or other topical preparation containing liposomes in which are encapsulated L-arginine, salt or salts of L-arginine, a complex of L-arginine or a derivative of L-arginine in an effective dose in addition to other ionic salts such as to create an ionic strength environment high enough to provide extra force to cause absorption of the L-arginine species.
56. The method of claim 49 where the delivery vehicle is orally administered L-arginine used in conjunction with a trans-dermal patch or its equivalent where the patch contains L-arginine, a salt or salts of L-arginine, a complex of L-arginine or a derivative of L-arginine in an effective dose.
57. The method of claim 49 where the delivery vehicle is orally administered L-arginine used in conjunction with a trans-dermal patch or its equivalent where the patch contains L-arginine, a salt or salts of L-arginine, a complex of L-arginine or a derivative of L-arginine in an effective dose in addition to other ionic salts such as to create an ionic strength environment high enough to provide an extra force to cause tissue absorption of the L-arginine species.
58. The method of claim 49 where the delivery vehicle is orally administered L-arginine (0.5-30 g/day) used in conjunction with a cream containing water, aloe vera, mineral oil, glycerol stearate, squalene, wheat germ oil, cetyl alcohol, propylene glycol stearate, polysorbate 60, propylene glycol, vitamin E, hyaluronic acid/collagen, vitamin A, vitamin D, sorbitan stearate, triethanolamine, imidazolidinyl urea, methylparaben, propylparaben, bha, L-arginine hydrochloride (0.25% to 25%) and sodium chloride (0.25% to 25%).
59. The method of claim 49 where the delivery vehicle is orally administered L-arginine (0.5-30 g/day) used in conjunction with a cream containing water, aloe vera, mineral oil, glycerol stearate, squalene, wheat germ oil, cetyl alcohol, propylene glycol stearate, polysorbate 60, propylene glycol, vitamin E, hyaluronic acid/collagen, vitamin A, vitamin D, sorbitan stearate, triethanolamine, imidazolidinyl urea, methylparaben, propylparaben, bha, L-arginine glutamate (0.25% to 25%) and sodium chloride (0.25%-25%).
60. The method of claim 49 where the delivery vehicle is orally administered L-arginine (0.5-30 g/day) used in conjunction with a cream containing water, aloe vera, mineral oil, glycerol stearate, squalene, wheat germ oil, cetyl alcohol, propylene glycol stearate, polysorbate 60, propylene glycol, vitamin E, hyaluronic acid/collagen, vitamin A, vitamin D, sorbitan stearate, triethanolamine, imidazolidinyl urea, methylparaben, propylparaben, bha, L-arginine (0.25% to 25%) and choline chloride (0.25% to 25%).

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**Set Name Query**

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*DB=USPT; PLUR=YES; OP=ADJ*

<u>L15</u>	('6165975'  '6160021'  'RE37438'  '6235750'  '6274557'  '6284794'  '6255296'  '6333350'  '6310270')[PN]	9	<u>L15</u>
<u>L14</u>	l13 not l1	173	<u>L14</u>
<u>L13</u>	l11 and l12	176	<u>L13</u>
<u>L12</u>	l6 and l7 and l8	534	<u>L12</u>
<u>L11</u>	l9 and l10	4864	<u>L11</u>
<u>L10</u>	l6.ab. or l7.ab. or l8.ab.	5961	<u>L10</u>
<u>L9</u>	L8	47744	<u>L9</u>
<u>L8</u>	topical or topically or dermally or transdermal or transdermally	47744	<u>L8</u>
<u>L7</u>	arginine	24557	<u>L7</u>
<u>L6</u>	nitric oxide	5318	<u>L6</u>
<u>L5</u>	l1 and l4	13	<u>L5</u>
<u>L4</u>	impotence or hair or baldness or blood	173964	<u>L4</u>
<u>L3</u>	hostile and l1	3	<u>L3</u>
<u>L2</u>	fossil.in.	14	<u>L2</u>

*DB=USPT,PGPB; PLUR=YES; OP=ADJ*

<u>L1</u>	fossil.in.	15	<u>L1</u>
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END OF SEARCH HISTORY